

**REMARKS**

This is intended as a full and complete response to the Office Action dated October 23, 2006, having a shortened statutory period for response set to expire on January 23, 2007. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1, 2, 7, 9, 12, 14, and 15 are rejected by the Examiner. Claim 13 is allowed and claim 3 is objected to but would be allowable if redrafted in independent form.

Claims 1-3, 7, 9, and 12-20 remain pending in the application after entry of this response. Claims 1, 9, and 12-14 have been amended and new claims 16-20 have been added. No new matter has been added by either the amendments or new claims.

***Claim Rejections Under 35 USC § 103***

Claims 1, 2, 7, 9, 12, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Leismer* (US 6,247,536) in view of *Kilgore* (6,651,749). Applicant respectfully traverses the rejection.

"It is improper to combine references where the references teach away from their combination." (MPEP §2145X.D.2.) It is a primary teaching of *Leismer* to use hydraulic control lines extending from the surface to operate his multiplexer:

The present invention relates to subsurface well completion equipment and, more particularly, to apparatus and related methods for using a small number of hydraulic control lines to operate a relatively large number of downhole devices.

(col. 1, lines 6-9). This is because *Leismer* is searching for a reliable way to operate his multiplexer:

[T]he cost to mobilize the equipment necessary to work over and make repairs to deepwater offshore and subsea wells may run into the tens of millions of dollars. Therefore, a single workover can cost more than the value of the hydrocarbons remaining in the subterranean formation, and as such can result in premature abandonment of the well, and the loss of millions of dollars of hydrocarbons, should problems requiring workover occur.

For these reasons, reliability of systems operating in oil wells is of paramount importance, to the extent that redundancy is required on virtually all critical operational devices.

(col. 1, lines 29-40). *Leismer* turns to hydraulic lines from the surface because of their proven reliability in controlling subsurface safety valves which is a critical safety application to prevent blowouts:

Well known in the industry is the method of controlling devices in wells utilizing pressurized hydraulic oil in a small diameter control line, extending from a surface pump, through the wellhead, and connecting to a downhole device, such as a surface controlled subsurface safety valve (SCSSV) ... Hydraulic control has long been used in this critically important, and highly regulated application because of its high degree of reliability, primarily because: 1) the metallurgy of control lines and its connective fittings have been developed to be resistant to the corrosive elements/conditions in wells; and 2) the hydraulic oils used are essentially incompressible, and are not significantly affected by the wellbore's temperature and pressure..

(col. 1, lines 51-67; see also col. 2, line 63 – col. 3, line 10). Therefore, in each and every embodiment, *Leismer* utilizes one or more hydraulic lines from the surface to operate his multiplexer.

Opposing this teaching is *Kilgore*. *Kilgore* teaches using production tubing rather than hydraulic lines to actuate tools (i.e., packers) which require high setting forces using a booster to overcome safety limits of the surface equipment and/or production tubing. Although *Kilgore* does not embellish on his selection of production tubing over hydraulic lines, he unmistakably excludes surface-run hydraulic lines from his invention:

The well tool actuators of the present invention are self-contained in that they are powered from the tubing fluid pressure itself without a high-pressure hydraulic or electrical connection to the surface.

(col. 1, lines 56-59; also repeated in Abstract; see also col. 1, lines 7-11).

Therefore, each reference teaches away from the other and combination of the references is improper. Withdrawal of the rejection is respectfully requested.

Regarding new claims 19 and 20, *Kilgore* and *Leismer*, either alone or in combination do not teach, suggest, or disclose "injecting the working fluid into the chamber via the inlet port, wherein the working fluid is throttled as the working fluid exits

PATENT  
Atty. Dkt. No. MRKS/0132

the chamber via the outlet port, thereby creating pressure in the chamber, exerting the pressure on the first area of the piston, and causing the second area of the piston to act on the hydraulic fluid," as recited in claim 19. Therefore, claim 19 and its dependent are patentable over *Kilgore* and *Leismer*.

### ***Claim Objections***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicant believes the objection is now moot because claim 1 is allowable. Withdrawal of the objection is respectfully requested.

### ***Conclusion***

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

  
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William B. Patterson  
Registration No. 34,102  
PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd. Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Applicant(s)